

CLAIMS

1 - Process for producing an activated AlF_3 based catalyst, wherein a crude AlF_3 is treated for more than 5 hours with a gas stream at a temperature from 300°C to 450°C .

5 2 - Process according to claim 1, wherein the temperature is from 350°C to 400°C .

3 - Process according to claim 1 or 2, wherein the crude AlF_3 is treated with the gas stream for from 6 to 50 hours.

10 4 - Process according to any one of claims 1 to 3, wherein the crude AlF_3 contains at least 95 wt.% of stoichiometric AlF_3 .

5 - Process according to any one of claims 1 to 4, wherein the crude AlF_3 has a B.E.T surface of at least $25 \text{ m}^2/\text{g}$.

15 6 - Process according to any one of claims 1 to 5, wherein the gas stream contains at least one of air, hydrogen fluoride, halogenated hydrocarbon or inert gas.

7 - Process according to any one of claims 1 to 6, wherein the treatment with the gas stream comprises at least 2 treatment steps with different gases.

8 - Process according to claim 7, wherein the treatment with the gas stream comprises

20 (a) a treatment with an inert gas stream for at least 4 hours
(b) optionally, a treatment with an anhydrous hydrogen fluoride stream
(c) a treatment with a hydrochlorofluorocarbon-containing stream for more than 1 hour.

25 9 - Process according to claim 7, wherein the treatment with the gas stream comprises

(a) a treatment with an air stream for at least 2 hours
(b) a treatment with an anhydrous hydrogen fluoride stream for at least 4 hours.

10 - Activated AlF_3 catalyst, obtainable according to the process of any one of claims 1 to 9.

11 - Process for the isomerisation of a hydrochlorofluorocarbon, wherein the hydrochlorofluorocarbon is contacted with the catalyst according to claim 10.

5 12 - Process according to claim 11 wherein the hydrochlorofluorocarbon is in the vapor state.

13 - Process according to claim 11 or 12, wherein the hydrochlorofluorocarbon comprises a mixture of 1,1,1-trifluoro-2,2-dichloroethane and 1,1,2-trifluoro-1,2-dichloroethane.

10 14 - Process according to claim 13 wherein the isomerisation is carried out at a temperature of 180 to 220°C.

15 - Method for the isomerisation of 1,1,2-trifluoro-1,2-dichloroethane wherein the 1,1,2-trifluoro-1,2-dichloroethane, preferably in the vapor state, is contacted with an isomerisation catalyst under a pressure of from 2 to 5 bar.